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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/790,245

03/02/2004

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028987.53209US

9893

23911 7590 01/08/2008
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EXAMINER

NGUYEN, TU MINH

ART UNIT

PAPER NUMBER

3748

MAIL DATE

DELIVERY MODE

01/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/790,245	Applicant(s) HELD ET AL.	
	Examiner Tu M. Nguyen	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. An Applicant's Amendment filed on October 3, 2007 has been entered. Claims 1 and 5 have been amended. Overall, claims 1-7 are pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (U.S. Patent 4,941,319) in view of Tanaka et al. (U.S. Patent 5,911,681).**

Re claims 1 and 5, as shown in Figures 1, 2, 4, and 5, Yamamoto et al. disclose a vehicle exhaust system and a method of triggering exhaust flaps in said exhaust system, the system comprising:

- triggerable exhaust flaps (10, 11),
- a mechanical transmission mechanism comprising a drive shaft (16) coupled with a servo motor (18) powered by pulley and drive belt to operate the exhaust flaps, and
- at least one engine characteristics map (Figure 4) stored in an engine control unit (20) for triggering the mechanism to open and close the exhaust flaps (10, 11) as a function of the at

Art Unit: 3748

least one stored engine characteristics map which includes the rotational speed, engine load, the engaged gear, and optionally additional control variables, for selectively increasing and muffling exhaust sound produced over a range of engine running states based on power and torque (see line 57 of column 2 to line 6 of column 3 and lines 4-17 of column 4).

Yamamoto et al., however, fail to disclose that instead of a mechanical transmission mechanism, a vacuum type transmission mechanism is used to operate the exhaust flaps.

As shown in Figures 1-2, Tanaka et al. disclose an exhaust gas purification apparatus for an internal combustion engine, comprising a hydrocarbon adsorbent (42) located in a bypass path (A). Tanaka et al. teach that it is conventional in the art to utilize a vacuum type transmission mechanism to operate an exhaust flap (40) in order to control the opening and closing of the bypass path, wherein the mechanism includes a vacuum storage device (41) operatively connected via a nonreturn valve (6) to an intake system (11) and to an exhaust system (8) via a triggerable solenoid valve (VSV) in parallel. Tanaka et al. also teach that their apparatus is also useful to reduce engine torque fluctuation when starting the engine from a cold condition. As indicated on lines 43-56 of column 10, lines 12-18 of column 9, and lines 7-32 of column 11, when the engine in Tanaka et al. is started in cold condition (i.e., low engine load and low exhaust or catalyst temperature), the solenoid valve (VSV) is activated to allow the vacuum in the intake system to close flow a main path B, open bypass path A, and close the exhaust flap (10) to prevent exhaust gas recirculation back to the engine in order to minimize an engine torque fluctuation and to prevent engine stalling due to combustion instability. It would have been obvious to one having ordinary skill in the art at the time of the invention was made, to have utilized the vacuum type transmission mechanism taught by Tanaka et al. in the method and

Art Unit: 3748

system of Yamamoto et al., since the use thereof would have been routinely practiced by those with ordinary skill in the art to effectively control the operation of an exhaust flap.

Re claims 2, 3, and 6, in the modified method and system of Yamamoto et al., the at least one appropriate engine characteristics map is selected in the control unit from the stored engine characteristics maps depending on a preselectable requirement (see Figure 4 and lines 4-17 of column 4).

Re claims 4 and 7, the modified method and system of Yamamoto et al. disclose the invention as cited above, however, fail to disclose that the selected appropriate engine characteristics map is configured to provide switching between operation of the vehicle as a street vehicle and as a racecar.

As depicted in Figure 4 and indicated on lines 4-17 of column 4, Yamamoto et al. open or close the exhaust flaps based on at least an engine speed. It is obvious to one with ordinary skill in the art that a vehicle operating under a relatively low engine speed is being driven on a city street; and that a vehicle operating under a high engine speed is being driven on a racing circuit.

Response to Arguments

4. Applicant's arguments with respect to the references applied in the previous Office Action have been fully considered but they are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Prior Art

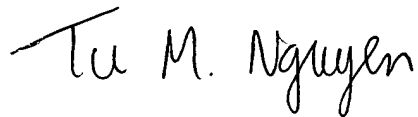
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of four patents: Tenney (U.S. Patent 3,703,937), Sakurai et al. (U.S. Patent 4,765,137), Ueda (U.S. Patent 4,909,033) and Weiner (U.S. Patent 5,894,115) further disclose a state of the art

Communication

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tu Nguyen whose telephone number is (571) 272-4862.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas E. Denion, can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TMN

January 4, 2008

Tu M. Nguyen

Primary Examiner

Art Unit 3748